

# Work Order ID 52053

September 15, 2009 11:18:58 AM



Page 1

Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

*PS Mr.*

Date:

*09-15*

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D206-667-241

Rev C

DSI 9471

Rev A

100

0.00



DC

DOCUMENT CONTROL

✓

Memo

0.00

Photocopy bluefile and create labels as per PPP D206-667-201 CHG003

*5 09/10/21*

*HJ for BG 09/10/20*

Document Control

110

0.00



Packaging

Packaging

Memo

0.00

Packaging

*9/10/22 SP*

**Work Order ID 52053**

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120



CNC Bend 2

BENDING MACHINE - CROSSTUBES

0.00

Memo

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D206-667-241 using CNC bender program 206B-AF and  
Folio FT \_\_\_\_\_

MB 09-09-30

130



QC

QC15- Crosstube Dimensional Check

0.00

Memo

0.00

Quality Control

2) 8 09/09/30



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Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

140

0.00



Crosstubes

Crosstubes

**Memo**

0.00

1-Drill pilot holes (3/16") as per Dwg D206-667-241 using drill Jig DT8575 &amp; DT8576

2-Drill &amp; ream holes as per Dwg D206-667-241 using drill Jig DT8575 &amp; DT8576.

(DRILL 3 HOLES ON BOTH SIDES)

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate tube using "T" pins off holes drilled in previous step.

4-Drill pilot holes (3/16") as per Dwg D206-667-241 using drill Jig DT8575 &amp; DT8576

5-Drill & ream holes as per Dwg D206-667-241 using drill Jig DT8575 & DT8576. Check dimensions between holes on all four sides to ensure proper alignment. Use DT8583 & 8584 SUPPORT Jigs.  
(DRILL 3 HOLES ON BOTH SIDES)

6-Drill rivet holes as per Dwg D206-667-241 using drill Jig DT8788

7-C'sink holes as per Dwg D206-667-241

8-Deburr &amp; Inspect for surface damage. Repair damage within limits as per Dwg D206-667-241

9-Scribe part # and batch # using vibrating stylus as per Dwg D206-667-241  
Inside of Cuff (Do not engrave on outside of tube)MB/SAD  
09-10-01

AWM 9-10-01

MB/SAD 09-10-01

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Customer:

Reference:

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150



HandFXtube

Crosstubes Chemical Conversion

0.00

Memo

0.00

Hand Finishing Crosstubes



HLS 09-10-01

160



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

2) 8 09/10/01



170



QC

Quality Control

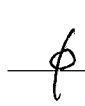
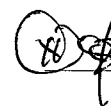
QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

2) 8 09/10/01



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Item ID: D206-667-201

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Cust Item ID:

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Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

Outsource process - NDT per QSI038 4.1

0.00



Outsource2

Memo

0.00

Outsource process - NDT

CROSSTUBES

P/O: 10557

CY

09/10/09

①

190

Packaging

0.00



Packaging

Memo

0.00

Packaging

Ensure copy of NDT results attached to work order.

09/10/09 ①

200

QC5 Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

Inspect for damage &amp; ensure results are as per Dwg D206-667-201

MA

09

10

13

①

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Item ID: D206-667-201

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Revision ID: C

Stop



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Start Date: 09/16/2009 Start Qty: 1.00



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Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

210



SprayPaint

Spray Painting

SprayPaint

0.00

Memo

0.00

1-Mask Threaded holes

2-Prime inside and outside crosstube as per QSI 005 4.2

3-Paint outside crosstube with White Imron as per QSI 005 4.2

PRIME:

Start Time: 7:30Finish Time: 8:00

PAINT:

Start Time: 2:30Finish Time: 3:30ml 09 10 14 ①

220



QC

Quality Control

QC14- Inspect Spray Paint

0.00

Memo

0.00

Wrap in plastic bag to protect from scratches

RT 09-10-15

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Item ID: D206-667-201

Accept



Setup Start



Revision ID: C

Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

230



Crosstubes

Crosstubes

0.00

Memo

0.00

1-Install support using 0.03" to 0.06" thick layer of magnobond 6398 per QSI 015. Let cure for 12h after installation and prior to packaging. Note: (3) top holes should be facing up.  
A/R Magnobond 6398 : 112417 exp 07/2010

1-Torque clamps to 80-100 in lb

→ ML 09 10 20 ①

ML 09 10 19 ①

240



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

→ 809/10/20

①

φ

250



Packaging

Packaging

Pick Kit

0.00

Memo

0.00

9/10/21 SD

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Page 8

Item ID: D206-667-201

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Stop



Item Name: Crosstube Aft

Start Date: 09/16/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/06/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

260



QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

Memo

0.00

=&gt; 509/10/21

(40)

/

270



Packaging

Packaging

Packaging

0.00

Memo

0.00

Identify and pack for shipping as per PPPD206-667-201

Location:

PPP Rev: D

9/10/21 SP (e)

280



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

09/10/22

MK  
09-10-21



# Picklist Print

September 15, 2009 11:18:57 AM

Page 1

Work Order ID: 52053

Parent Item: D206-667-201RevC

Parent Item Name: Crosstube Aft

Comments:

Start Date: 09/16/2009

Required Date: 10/06/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D206-667- 201TRNRevC		Manufactured	No			110	Each	2.0000	1.0000			



Crosstube Turning Detail

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FG	2	
44270	1	
44271	1	

D2891-1RevA1

Manufactured No

230

Each

81.0000

2.0000



2.25 Support

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	81	
40336	1	
<u>41198</u>	16	
43880	20	
45935	4	
46159	20	
50952	20	

IX MB 09-09-30 ✓

MB 09 10 19

# Picklist Print

September 15, 2009 11:18:57 AM

Work Order ID: 52053

Parent Item: D206-667-201RevC

Parent Item Name: Crosstube Aft

Comments:

Start Date: 09/16/2009

Required Date: 10/06/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3595-063-395 RUBBER CUSHION		Manufactured	No			230	Each	44.0000	4.0000			

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

44

44667

44

*mt 09 10 19*

MS21920-20

Purchased

No

230

Each

156.3000

4.0000

Clamp (per MIL-DTL-8783C)

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

156.3

103478

2

106484

12

109269

9.3

110536

10

111281

34

112307

50

112624

39

*mt 09 10 19*

# Picklist Print

September 15, 2009 11:18:57 AM

Work Order ID: 52053



Parent Item: D206-667-201RevC



Parent Item Name: Crosstube Aft

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN5-10A Bolt		Purchased	No			250	Each	150.0000	10.0000			



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	150	
107013	8	
110363	2	
111425	2	
111819	38	
112314	50	
112385	50	

16  
4

111819  
112314

SL

AN5-30A

Purchased

No

250

Each

85.0000

10.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	85	
110467	85	

110467 9/10/21 SP

# Picklist Print

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Parent Item: D206-667-201RevC



Parent Item Name: Crosstube Aft

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN5-32A Bolt		Purchased	No			250	Each	79.0000	4.0000			



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

79

106242

3

106519

4

110363

17

111916

5

112082

50

112082 9/10/21 SP

# Picklist Print

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Work Order ID: 52053



Parent Item: D206-667-201RevC



Parent Item Name: Crosstube Aft

Start Date: 09/16/2009

Required Date: 10/06/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN960JD516

Purchased

No

250

Each

1,153.000

20.0000



Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1153

100564

2

106167

6

107534

34

107959

43

108246

46

108672

2

109059

49

109752

22

110363

46

110523

57

111279

43

112082

303

112314

500

D2872-043RevA

Manufactured

No

250

Each

11.0000

2.0000



Nut Plate Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

11

28918

11

1112794 SP

28918 9/10/20 SP

September 15, 2009 11:18:57 AM

Shop Packet Print

# Picklist Print

September 15, 2009 11:18:57 AM

Work Order ID: 52053

Parent Item: D206-667-201RevC

Parent Item Name: Crosstube Aft

Comments:

Start Date: 09/16/2009

Required Date: 10/06/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

S D2872-045RevA

Manufactured

No

250

Each

11.0000

2.0000

Nut Plate Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

11

28919

11

S D3039-3RevA

Manufactured

No

250

Each

20.0000

1.0000

Centre Drill

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

20

14761

20

S MS21042L5

Purchased

No

250

Each

1,307.000

10.0000

Nut

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1307

110382

10

111636

297

112314

1000

28919 sl

14761 sl

111636 9/10/20 @ 50

September 15, 2009 11:18:57 AM

Shop Packet Print

Item	Qty -241	Part Number	Description
1	X	D206-667-241	CROSSTUBE ASSEMBLY (206B HIGH AFT)
2	1	D6003-102	CROSSTUBE
3	2	D2891-1	SUPPORT
4	4	D3595-063-395	RUBBER CUSHION
5	4	MS21920-20	CLAMP (OR MS21920-21)
6	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

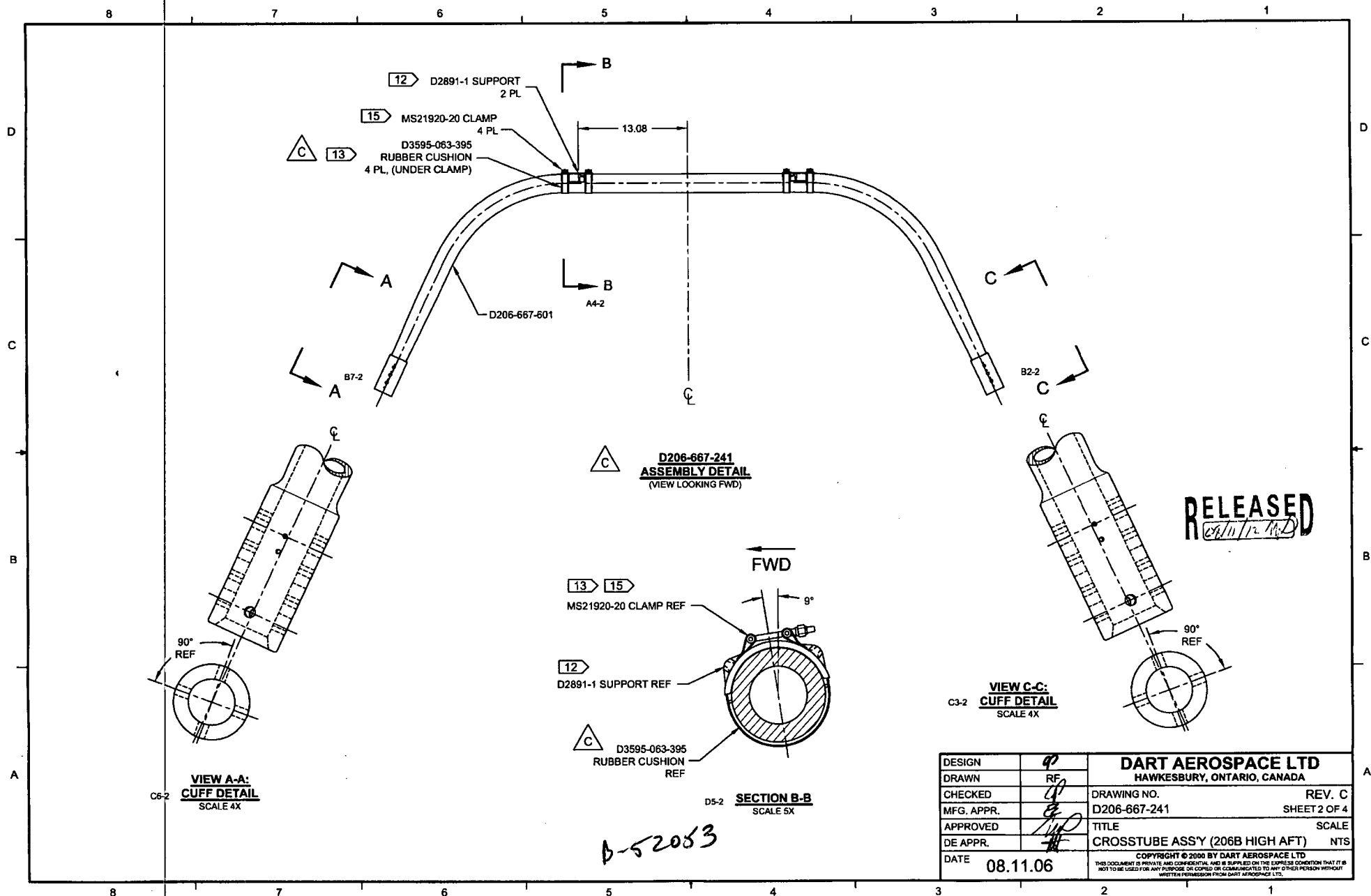
#### GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6003-102  
FINISHED LENGTH = 100.60±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-241" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 22.5 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 12 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS MECHANISMS ARE LOCATED ON CROSSTUBE CLAMPS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

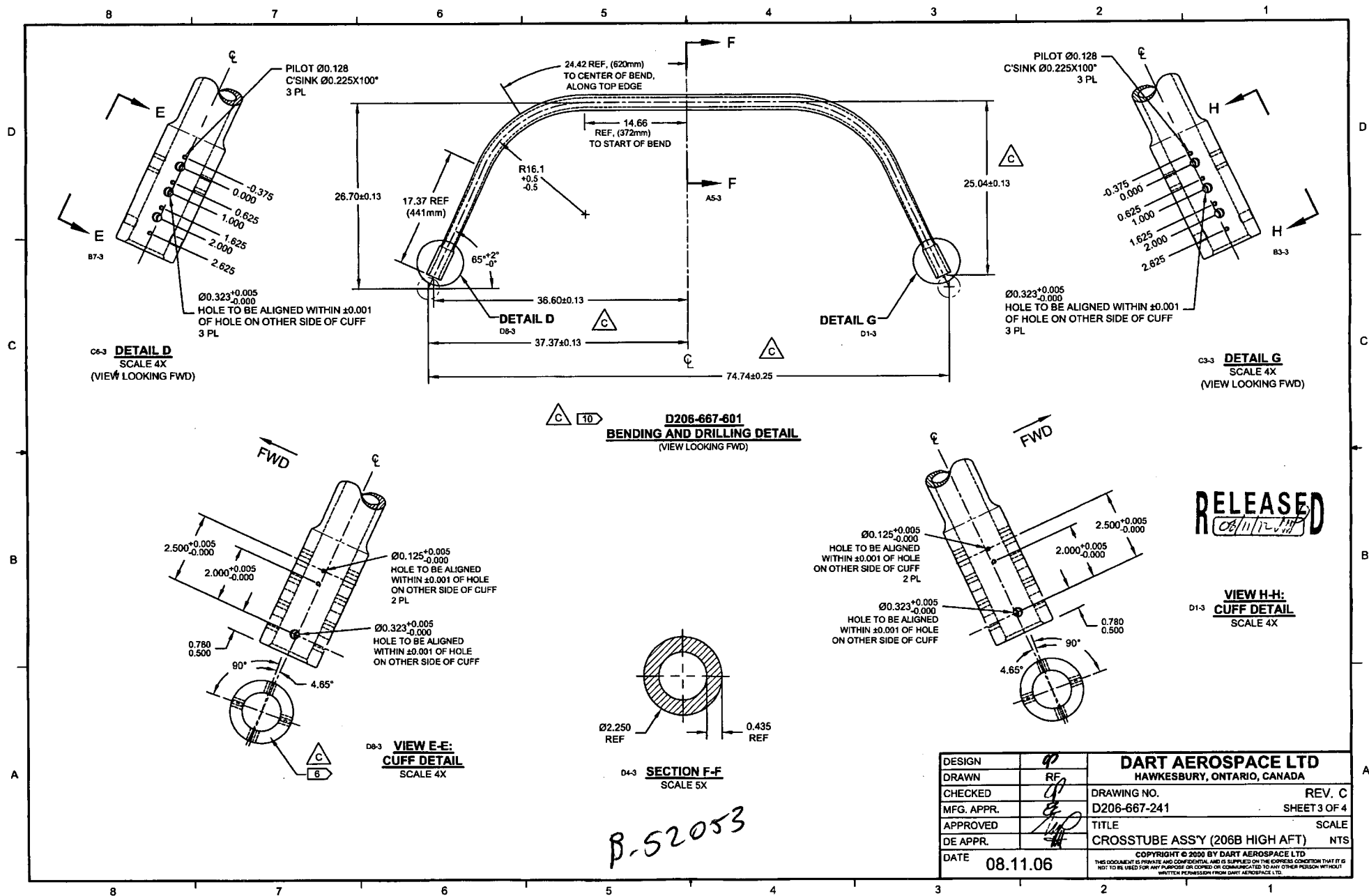
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UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. **32053**

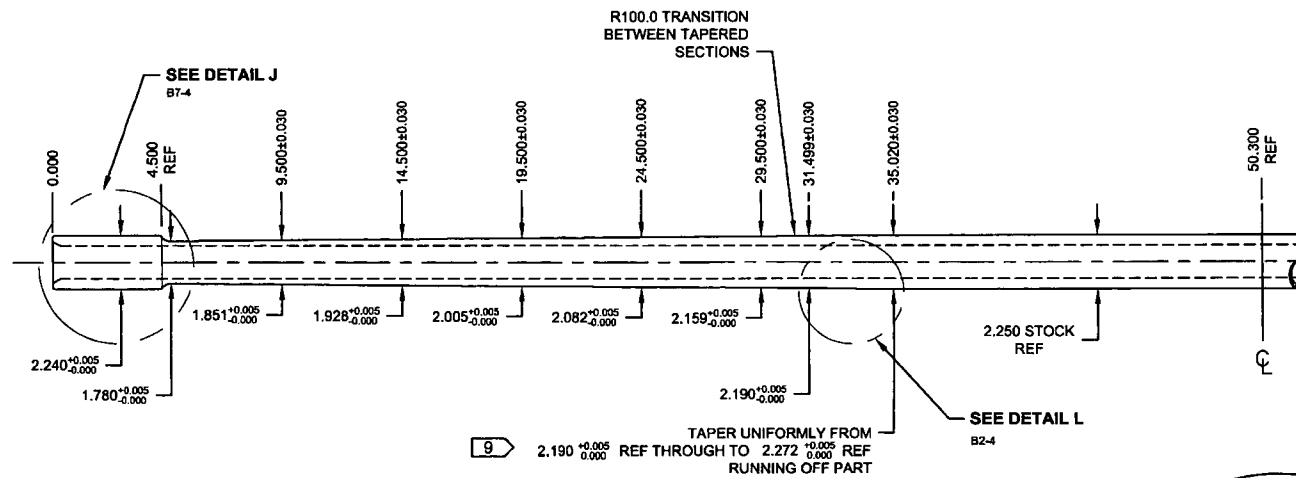
RELEASED  
08/11/06

C	REFORMAT/REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN C5-3, C4-3, D3-3); RELOCATED FLAG #6 (ZN A7-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	PH	05.02.04
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	9P	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. REV. C D206-667-241 SHEET 1 OF 4 TITLE SCALE CROSSTUBE ASS'Y (206B HIGH AFT) NTS <small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	
DRAWN	RF		
CHECKED	9P		
MFG. APPR.	9P		
APPROVED	9P		
DE APPR.	9P		
DATE	08.11.06		

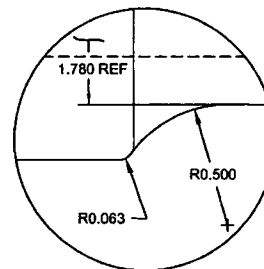




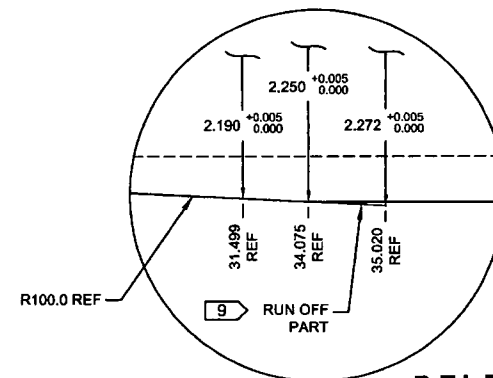




**TURNING DETAIL**

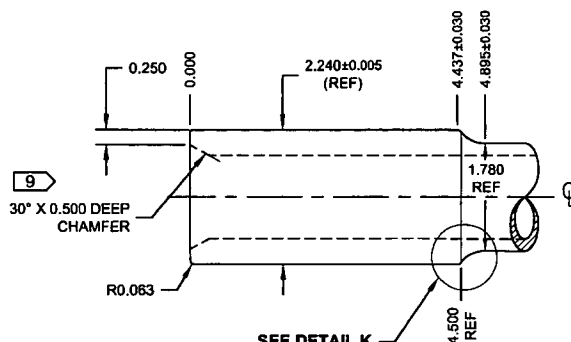


**DETAIL K:  
CUFF TRANSITION**  
NOT TO SCALE



**DETAIL L:  
TAPER RUN-OFF**  
NOT TO SCALE

**RELEASED**  
06/11/12



**DETAIL J:  
CROSSTUBE CUFF**  
NOT TO SCALE

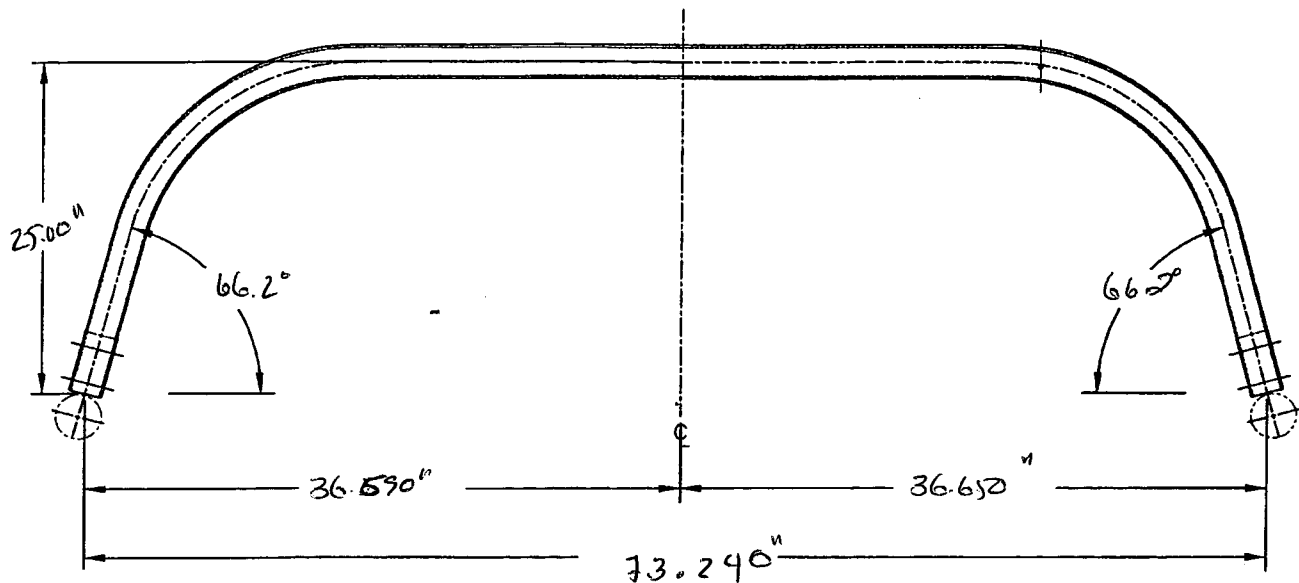
DESIGN	90	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	RF	D206-667-241	SHEET 4 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CROSSTUBE ASS'Y (206B HIGH AFT)	NTS
DATE	08.11.06	COPYRIGHT © 2000 BY DART AEROSPACE LTD	
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M-52053

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	52053
<b>Description:</b> Crosstube High Aft (206B)		<b>Part Number:</b>	D206-667-201
<b>Inspection Dwg:</b> D206-667-241		<b>Rev:</b> C	Page 1 of 1

E 09.09.21

Required Dimension	Min	Max
Height	24.98	25.10
1/2 Span	36.54	36.66
Angle	65	67
Total Span	73.08	73.32



Comments

QC15 Inspection	S
Date	09/09/20

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	07.12.04	24-98 was 24.48	KJ/JM	



## LIQUID PENETRANT TEST REPORT

P-1536

CLIENT	<u>DART AEROSPACE</u>	DATE	<u>OCT-8-2009</u>	PAGE	<u>1</u> OF <u>1</u>
ATTENTION	<u>LINDA/CHAUTEL</u>	ACUREN JOB NO.	<u>188-08-001567</u>	TIME	AM <input checked="" type="checkbox"/> P
ADDRESS	<u>1270 ABERDEEN ST, HAWKESBURY</u>	PO/VO No.	<u>- 10557</u>		
	<u>ON. K6H 2K7</u>	WORK LOCATION	<u>SAME</u>		
		ACCEPTANCE STD.	<u>ASTM 1417</u>	REV./DATE	<u>200</u>
PROJECT	<u>F.P.I. on CROSS TUBES AND MACHINED PARTS</u>				
ITEM(S) EXAMINED	<u>10 CROSS TUBES</u>				
	<u>13 MACHINED PARTS</u>				

JOB DESCRIPTION	PROCEDURE NO. LT-	REV./DATE	TECHNIQUE NO. LT-	REV./DATE
PART NO.	<u>STAINLESS STEEL</u>		MATERIAL	<u>ALUMINUM</u>
SCOPE	<u>WET FLUORESCENT LIQUID PENETRANT INSPECTION</u>			
	<u>CARRIED OUT 100% EXTERNAL</u>			

TEST DETAILS				
METHOD	<input checked="" type="checkbox"/> FLUORESCENT	<input type="checkbox"/> VISIBLE	<input checked="" type="checkbox"/> WATER WASH	<input type="checkbox"/> SOLVENT REMOVABLE
FAMILY BRAND	<u>MASNA FLUX</u>		BLACK LIGHT S/N	<u>16459</u>
PENETRANT	<u>2L-67</u>	MINIMUM DWELL TIME	<u>45</u>	MIN.
PENETRANT REMOVER	<u>H2O</u>	MINIMUM DRY TIME	<u>&gt;10</u>	MIN.
DEVELOPER	<u>SKD 52</u>	MINIMUM DWELL TIME	<u>10</u>	MIN.
DEVELOPER TYPE	<input checked="" type="checkbox"/> NON AQUEOUS	<input type="checkbox"/> AQUEOUS	<input type="checkbox"/> DRY	

TEST SURFACE				
SURFACE CONDITION	<input type="checkbox"/> AS GROUND	<input type="checkbox"/> AS WELDED	<input checked="" type="checkbox"/> MACHINED	<input type="checkbox"/> SHOT BLASTED
SURFACE TEMPERATURE	<input type="checkbox"/> < -4°C/ 20°F	<input type="checkbox"/> -4°C/ 20°F TO 10°C/ 50°F	<input checked="" type="checkbox"/> 10°C/ 50°F TO 52°C/ 125°F	<input type="checkbox"/> > 52°C/ 125°F

RESULTS- (☒ METRIC ☐ IMPERIAL)

1 - W.O. 51939 - CROSS TUBE	X
1 - W.O. 51940 - CROSS TUBE	/
1 - W.O. 52054 - CROSS TUBE	/
1 - W.O. 52055 - CROSS TUBE	/
<del>1 - W.O. 51297 - CROSS TUBE</del>	/
1 - W.O. 51937 - CROSS TUBE	/
1 - W.O. 51938 - CROSS TUBE	/
1 - W.O. 52052 - CROSS TUBE	/
<del>1 - W.O. 52053 - CROSS TUBE</del>	/
1 - W.O. 50982 - CROSS TUBE	/
1 - W.O. 50983 - CROSS TUBE	/
13 - W.O. 51297 - STUDS	/

ALL PARTS EXAMINED. HAVE BEEN FOUND ACCEPTABLE TO STANDARD.

MM 09 10 13

Scope of Services  
The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care  
In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, express implied, is made or intended by Acuren Group Inc.

SIGNATURES		
CLIENT REPRESENTATIVE	<u>MATTHEW MORDOCH</u>	DTR # <u>E-27843</u>
TECHNICIAN (SIGNATURE):	<u>Mike Johnston</u>	REPORT REVIEWED BY:
NAME (PRINT):	<u>Mike Johnston</u>	NAME INIT
CGSB LEVEL <u>2</u>	SNT LEVEL <u>2</u>	CGSB LEVEL
CGSB REG. No. <u>6060</u>		CGSB REG. No.

WHITE - CLIENT COPY

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PINK - TECHNICIAN COPY

GOLD - OFFICE COPY

PT 5